Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
A National Broadband Plan For Our Future	)	GN Docket No. 09-51
	)	

NTCA
NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION
The Voice of Rural Telecommunications
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REPLY COMMENTS

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REPLY COMMENTS

The National Telecommunications Cooperative Association (NTCA)[1] responds to the initial comments filed on June 8, 2009, regarding the Federal Communications Commission (Commission or FCC) Notice of Inquiry (NOI) on what should be included in a comprehensive broadband plan for the United States.[2] Silence on any positions raised by parties in this proceeding connotes neither agreement nor disagreement with their positions or proposals. Unless specifically stated below, NTCA reasserts its positions described in its June 8, 2009, initial comments filed in this docket.

I. INTRODUCTION AND SUMMARY.

The Commission has the opportunity to migrate affordable universal voice service into affordable universal broadband service for all Americans. The United States national broadband network, however, is only as strong as its weakest link. The weakest link in today's national

[1] NTCA is a premier industry association representing rural telecommunications providers. Established in 1954 by eight rural telephone companies, today NTCA represents 585 rural rate-of-return regulated telecommunications providers. All of NTCA's members are full service rural local exchange carriers (LECs) and many of its members provide wireless, cable, Internet, satellite and long distance services to their communities. Each member is a "rural telephone company" as defined in the Communications Act of 1934, as amended (Act). NTCA's members are dedicated to providing competitive modern telecommunications services and ensuring the economic future of their rural communities.

[2] *In the Matter of a National Broadband Plan for Our Future,* GN Docket No. 09-51, Notice of Inquiry (NOI), (rel. Apr. 8, 2009).

broadband network is the last mile connecting the consumer to the public Internet. If the last mile is non-existent or substandard and incapable of transmitting a high capacity and high quality broadband signal, the consumer is denied the opportunity to realize the full promise of the Internet. An affordable, all-inclusive national broadband network that is the envy of the world will be achieved through government policies and assistance programs that encourage and support the construction and ongoing maintenance of broadband networks operating in market failure areas.[3]

Government policies and programs including loans, loan guarantees and universal service support were instrumental in the realization of affordable and comparable telephone service for all. The United States public switched telecommunications network (PSTN) remains the envy of the world. The same should be true for the United States national broadband network. The critical factor in making this a reality is the reform of the universal service fund (USF) support mechanisms and intercarrier compensation (IC) rules in a timely and prudent manner which allows these lawful cost recovery mechanisms to migrate from the public switched telecommunications world to the IP-based broadband world to ensure affordable and comparable broadband Internet access service to all consumers. Great steps towards accomplishing this goal will be achieved if the Commission adopts the following recommendations offered in the initial comments of NTCA, consumer groups, state commissions, competitive local exchange carriers (CLECs), non-regional Bell holding company (non-RBOC) wireless carriers, state telephone associations, and others:

1. Include "broadband Internet access service" in the definition of "universal service."

[3] In the legacy telephone voice world, distribution plant consisted of copper loops connecting the consumer to the central office switch, which was the costliest part of the network because opportunities for economies of scale diminish as the network gets closer to the consumer. It was only in the last forty years of the 20th century that universal telephone voice service was offered to essentially all Americans primarily because of universal service fund (USF) support and intercarrier compensation (IC) cost recovery rules.

2. Reclassify wireline and cable "broadband Internet access service" as a "telecommunications service."

3. Regulate broadband Internet access service under Title II common carrier regulation.

4. Target transitional and future federal high-cost USF support in "Market Failure Areas" to ensure comparable broadband services and prices in rural and urban areas throughout the United States.

5. Expand the base of USF contributors to include all providers of retail broadband service.

6. Assess USF contributions based on telecommunications and broadband revenues.

7. Eliminate the identical support rule and base USF support on each company's own costs.

8. Refrain from capping and/or freezing high-cost USF support because this will hinder or halt broadband deployment in high-cost areas.

9. Establish Title II interconnection and network management rules pursuant to Sections 251 and 256 of the Act to allow for the seamless transmission of communications between public broadband Internet access networks.

10. Require IP/PSTN traffic, specifically interconnected VoIP traffic, to pay applicable tariffed originating and terminating interstate access rates, intrastate access rates, and reciprocal compensation rates as part of USF and IC reform within the National Broadband Plan.

11. Require special access (middle-mile) transport service rates to be reasonable and non-discriminatory.

12. Include special access (middle-mile) transport service and stand-alone broadband Internet access service costs in the calculation for determining future high-cost USF broadband support.

13. Make the rural health care USF broadband pilot program a permanent part of the National Broadband Plan.

14. Improve broadband Internet access services to low-income Americans by using USF funds through the Lifeline and Link-up USF programs.

15. Establish reasonable and non-discriminatory pole attachment rates and ILEC dispute mechanisms for broadband pole attachments to encourage and accelerate broadband deployment, including smart grid applications.

The United States continues to fall behind the rest of the world in broadband deployment, penetration, affordability, and quality primarily because of decisions the Commission made over the past 10 years removing cable and wireline high-speed Internet access service from Title II common carrier regulation and classifying these services as a Title I deregulated "information service." The Commission must now recognize and reverse those deregulatory decisions that have prevented the United States from reaching its goal of ubiquitous and affordable high-speed Internet access service for all Americans.

II. COMMENTERS AGREE THAT UNIVERSAL SERVICE FUNDS SHOULD SUPPORT BROADBAND INTERNET ACCESS SERVICE.

Broadband internet access services have become so integrated and important to American society that now is the time for the Commission to add broadband to the list of USF supported services. Broadband itself should have an evolving, not static, definition to better reflect changes in our society. Also deserving USF support are middle-mile special access transport and stand-alone broadband Internet access service costs.

A. Broadband Should Be Added to the List of USF Supported Services.

Disagreement remains about how the universal service fund should evolve to fund broadband, but there is nearly unanimous support for the proposition that universal service funds should be available for broadband.[4] Verizon states it "is past time to update the USF to enhance the reach and capabilities of broadband."[5] OPASTCO asserts the "time has come for broadband to be added to the list of services eligible to receive support directly from the High-Cost

[4] *See, e.g.*, Western Telecommunications Alliance (WTA) Comments, p. iii, Consumer Federation of America and Consumers Union (CFA/CU) Comments, p. 1, Rural Cellular Association (RCA) Comments, p. 22, NASUCA Comments, p. 46, Qwest Comments, pp. 14, 16, CTIA – The Wireless Association (CTIA) Comments, p. 39, TDS Telecommunications Corporation (TDS) Comments, p. 15, Texas Statewide Telephone Cooperative, Inc. (Texas) Comments, p. 9, Independent Telephone and Telecommunications Alliance (ITTA) Comments, p. 6, and Telecommunications Industry Association (TIA) Comments, p. 9.

[5] Verizon Comments, p. 112.

program."[6] NTCA agrees with these commenters and with Public Knowledge in that "we can preserve existing subsidized service by providing [voice services] over an IP platform while expanding the concept of universal broadband to include meaningful access for all Americans. The time has come to recognize that broadband, not voice, has become the 'must have' utility for the 21st Century. A National Broadband Plan should have as its centerpiece a plan to reform USF to address the continuing funding needs pertaining to both [broadband] build out/upgrades."[7]

While there is near-universal support for using universal service funding to support broadband, some argue that such funding should be allowed without a finding that broadband is a supported service.[8] However, there is no rational, policy or legal arguments to support that position. The United States Telecom Association (USTelecom) asserts that adding broadband to the list of supported services "would be counterproductive,"[9] but offers no explanation of how or why it would be "counterproductive."[10] Instead, USTelecom argues that because mobility appears nowhere in the list of supported services and therefore, neither should broadband. The comparison lacks merit. All of the supported services are technologically neutral. They are services that can and do ride across multiple wireless and landline platforms. In contrast, mobility merely means that services are transmitted and received wirelessly. Mobile wireless providers must offer all of the supported services in the current definition of universal service to be eligible to receive funding.[11] Broadband is a service that can be and is offered across

[6] OPASTCO Comments, p. 19.
[7] Public Knowledge Comments, pp. 17-18.
[8] *See, e.g.*, United States Telecom Association (US Telecom) Comments, p. 17.
[9] *Ibid*.
[10] Presumably, US Telecom opposes including broadband in the list of supported services because universal service support may support "telecommunications services," but not allegedly "information services." Such attempt to get the benefits of USF support, but not the corresponding obligations, of a telecommunications service classification for broadband should be disregarded.
[11] The current supported universal services are: 1) the ability to place and receive telephone calls; 2) touch tone

multiple platforms, like the other services that are supported by universal service, and unlike "mobility."

Moreover, broadband Internet access service meets the following statutory criteria in section 254(c)(1) of the 1996 Act defining what the Commission must consider when adding a service to the list of USF supported services. Broadband Internet access service has become essential to education, public health, and public safety. Broadband Internet access service is subscribed to by a substantial majority of residential consumers. Broadband Internet access service is deployed in public telecommunications carrier networks. And, widespread availability of broadband Internet access service is consistent with the public interest, convenience, and necessity. Indeed, in 2007, based on the above-criteria, the Federal-State Joint Board on Universal Service specifically recommended that broadband Internet access service be added to the definition of supported services.[12] The time has arrived to add broadband Internet access service to the list of USF supported services.

High-cost USF support is necessary for ubiquitous broadband deployment, particularly in rural areas. Rural LECs have done an outstanding job of upgrading networks and deploying technology to meet the broadband needs of the communities they serve, but ongoing, predictable and sufficient support from USF mechanisms is necessary for rural LECS to completely transition from the PSTN to the National Broadband Network.[13] There remain portions of some rural service areas that are prohibitively expensive to serve. As RICA correctly recognizes, "[w]ithout some sort level of support, affordable broadband access is not feasible in many high

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dialing; 3) single party service; 4) access to emergency services; 5) access to operator services; 6) the ability to place long distance calls; 7) the ability to turn off long distance calling; and 8) directory assistance.

[12] *High-Cost Universal Service Support*, WC Docket No. 05-337, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Recommended Decision, 22 FCC Rcd 20477, 20490-20492, ¶ 55-62 (2007).

[13] *See* TDS Comments, p. 15, OPASTCO Comments, p. 19, Rural Independent Competitive Alliance (RICA) Comments, pp. 7, 11.

cost areas."[14] As the country moves to a national broadband network, the USF mechanisms for rural LECS must be modified accordingly. Adding broadband to the list of services supported by USF would provide carriers with the cost recovery mechanisms needed to help achieve ubiquitous broadband deployment at affordable rates.

B. Broadband High Cost USF Support is Necessary for Broadband Network Upgrades and Should Have an Evolving Definition.

Ubiquitous broadband deployment is an admirable goal, but true rural-urban parity requires broadband support, not only for deployment, but also for the ongoing operations and network maintenance of the network. The definition of broadband is evolving and the network must be able to accommodate the increasing demand for services and applications requiring greater bandwidth. Funding only the construction of the network will not permit the network to expand and adjust to future changes in technology and consumer demand. The Wireless Internet Service Providers Association points out that the broadband stimulus program has a short life and long- term support to high cost areas is necessary to help ensure that broadband projects are sustained.[15] USF support will be needed on an ongoing basis to ensure that networks are appropriately maintained, upgraded and remain available to consumers in rural high-cost areas at rates that are affordable and reasonably comparable to those charged in urban areas. [16]

TDS Telecommunications Corporation states, "what constitutes a satisfactory 'broadband' experience today may seem painfully slow – and be of potential limited utility if not entirely useless – in the future."[17] NTCA agrees. Any national broadband plan developed by the FCC and endorsed by Congress must also be able to adjust to the future needs of

[14] RICA Comments, p. 11, Texas Comments, p. 9.
[15] WISPA Comments, p. 16, NECA Comments, p. 11.
[16] Texas Comments, pp 9-10.
[17] TDS Comments, p. 6.

communities. This will require USF support for the ongoing operations and maintenance of broadband networks serving high-cost market failure areas throughout the United States.

C. Middle-Mile Special Access Transport is Crucial for Rural Broadband Deployment, so These Costs Should Receive USF Support and Price Cap Carrier Data Should Be Gathered.

Middle-mile facilities are necessary to transport Internet traffic to and from rural areas. In vast rural expanses of the country, the largest incumbent price-cap carriers are the only providers of high-capacity circuits that many rural ILECs must utilize to provide broadband Internet access to their retail customers. NTCA agrees with NECA's observation that the Commission must "develop ways to address both 'middle mile' and access-to-content issues for rural broadband providers, as these issues pose obstacles to sustainability."[18] NTCA also agrees with the National Rural Telecommunications Cooperative (NRTC)'s assessment that, "Middle-mile facilities can range from a few miles to a few hundred miles, especially in rural areas. … The lack of middle-mile infrastructure is one of the greatest obstacles to building sustainable rural broadband networks."

Many commenters join NTCA in asserting that transport cost recovery for middle-mile special access is crucial for broadband deployment, especially for rural areas.[19] Several commenters agree with NTCA that USF support is appropriate for the middle-mile.[20]

NTCA renews its recommendation that the Commission should include Internet backbone and middle-mile special access transport costs as part of a future high-cost broadband USF support determination. Internet backbone and middle-mile transport services should be

[18] NECA Comments, p. 2.
[19] *See, e.g.*, NTCA Comments, p. 22, American Cable Association (ACA) Comments, pp. 2, 7, Arizona Consumers Council Comments, p. 7, General Communication, Inc. (GCI) Comments, pp. 2, 7, Level 3 Communications, LLC (Level 3) Comments, pp. 1-2, National Rural Telecommunications Cooperative/DigitalBridge Communications Corp. (NRTC/DBC) Joint Comments, p. 19, Sprint Nextel Comments, pp. 11, 12, 18, Texas Comments, pp. 3, 16, T-Mobile Comments, p. 11.
[20] NTCA Comments, p. 22, Verizon Comments, p. 8, OPASTCO Comments, p. 22.

nondiscriminatory and cost-based, and others agree.[21] Allowing the recovery of Internet backbone and middle-mile transport costs as part of the future broadband USF mechanism will help ensure that high-cost rural consumers receive comparable and affordable broadband services. Middle-mile special access costs are and will be substantial in very high-cost, sparsely populated areas and should be included the future high-cost broadband USF support calculation.

NTCA member companies report there is minimal, if any, choice of special access carriers in many rural areas throughout the United States, and that there has been no downward pressure on prices for many years. Members report that discounts off price lists are not available and that there exists no flexibility in terms and conditions. Coupled with the fact that the large price-cap carriers' services agreements are subject to non-disclosure terms, these conditions place rural carriers in a "take-it-or-leave-it" situation in securing these special access services that they require in order to offer broadband Internet services.

Data regarding middle-mile facilities and special access issues are also essential to a national broadband plan since NTCA and its member companies believe that the essentially unregulated special access market in rural America lacks competition. Thus, purchasers of special access lack the ability to protect their retail broadband customers from the effects of the resulting pricing and other terms and conditions.

NTCA has offered suggestions on data requests to price cap carriers in the Commission's open docket regarding special access to better protect NTCA members and their customers.[22] NTCA's proposed data requests pertain to the largest price-cap carriers, AT&T, Verizon and Qwest, who possess end-to-end market power in many areas throughout the United States. Such data from these carriers will be helpful in distinguishing behavior of these carriers between urban

[21] Texas Comments, p. 3.
[22] *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC 05-25, NTCA ex parte filing (filed June 24, 2009).

and rural areas, and would assist the Commission in determining the status of special access competition in the nation's most rural geographic areas.

D. Rural Carriers Need USF Support for Stand-Alone or Naked Broadband Internet Access Service.

One way to encourage the transition to broadband is to provide economic incentives for last mile providers to implement cost effective broadband solutions and to offer consumers services that they value. Current rules and practices involving 'stand-alone' or 'naked DSL' present special challenges to incumbent local exchange carriers (ILECs). Most ILECs initially offered broadband by installing digital subscriber line (DSL) on existing copper loop plant. This offered consumers Internet access at speeds much faster than dial-up at a modest cost because DSL was tariffed as an additional service to voice telephone service. As long as the consumer had voice service with the ILEC the cost of the loop was embedded in voice rates and the only additional cost was to add DSL to the existing voice loop. However, since the market for broadband access to the Internet has matured, many consumers now want a broadband connection but do not want underlying voice telephone service. In this situation, the National Exchange Carrier Association (NECA) tariff for DSL includes the cost of the loop because DSL is the only service being offered on that particular loop. Thus 'naked DSL' is much more expensive than DSL combined with voice.

In high cost areas the situation is even worse because there is universal service high cost loop support for voice, while broadband is not a supported service. In this case the consumer would be asked to pay for the entire cost of the loop without any offsetting universal service support. The Commission should allow rate-of-return rural carriers to provide 'naked DSL' service with the same level of loop support that is provided to bundled voice and DSL service during and after the transition to broadband. Such a policy is pro-consumer and permits

providers to offer affordable DSL to consumers that no longer choose to have traditional voice telephone service.

III. A MODIFIED UNIVERSAL SERVICE FUND REGIME SHOULD BECOME PART OF THE NATIONAL BROADBAND PLAN.

A truly effective national broadband plan will require several changes to the USF structure. For example, the Commission should require all broadband internet access providers to contribute to the USF. The FCC should base its USF contribution methodology on revenues, not numbers, for future USF support. High-cost support should be based on the carrier's actual costs, not the incumbent's costs, per the current Identical Support Rule. The USF high-cost fund should not be capped. Furthermore, the USF broadband pilot program for Lifeline and Link-up can be an effective means to increase broadband Internet access penetration among low-income consumers.

A. All Broadband Internet Access Providers Should Contribute to the USF.

Many parties agree that all broadband Internet access providers should contribute to future broadband USF support mechanisms.[23] NASUCA correctly identifies that if the USF is to support broadband, the Commission must assess universal service support costs on broadband services."[24] Expanding current USF programs to include broadband without assessing broadband services to contribute to the USF will not provide sufficient, predictable and sustainable levels of broadband USF to achieve the goal of ubiquitous and affordable Internet access service to all Americans.[25] Declaring broadband Internet access service a Title II telecommunications service will enable it to receive universal service support and allow the

[23] *See, e.g.*, NTCA Comments, p. 19, OPASTCO Comments, p. 31, CFA/CU Comments, p. 2, and NASUCA Comments, pp. 47-48
[24] *Ibid*.
[25] *Ibid.*

Commission to achieve its national broadband goal.[26]

Free Press makes the argument that broadband providers should not be required to contribute to the universal service fund, as doing so would discourage consumers from subscribing to broadband services: "[B]roadband service is currently what economists call an 'elastic' service, meaning that a 1 percent increase in price will result in a greater than 1 percent decrease in subscribership. (Contrast this with telephony, which is an 'inelastic' service.)"[27] Earlier in their comments, however, Free Press says: "We recognize that the utility consumers derive from broadband services is far greater than that from telephone, and that given the choice between slightly higher telephony rates or new broadband service in unserved areas, most consumers would choose the latter."[28]

It is difficult to reconcile these two, seemingly contradictory positions. Are we to believe that customers are unwilling to pay slightly more for a service which provides them with "far greater" utility? Or, more surprisingly, should we believe that consumers are willing to pay more for a service that delivers less utility?

The Pew Internet & American Life Project's recent broadband survey sheds some light on consumer preferences.[29] In their report, Pew finds that "[b]roadband adoption appears to have been largely immune to the effects of the current economic recession"[30] and that "it appears that few people were willing to cutback on broadband and were more likely to economize on communications services other than the internet."[31] Further, according to Pew, 11% of survey respondents cancelled their landline service in the past 12 months to save money, while 9%

[26] CFA/CU Comments, p. 17.
[27] Free Press Comments, p. 237.
[28] *Id.* at 224.
[29] "Home Broadband Adoption 2009," Pew Internet & American Life Project, Washington, D.C., June 2009 ("Pew Survey").
[30] Pew Survey, p. 4.
[31] *Id.* at 19.

cancelled or cut back on internet service.[32] Clearly, broadband is a highly valued service among American consumers, one which many are unwilling to give up. It seems unlikely that the relatively small increase in end user rates that may result from the assessment on providers will dampen demand for broadband services.

NTCA strongly believes that all providers of broadband services—as well as all voice substitute services and all special access service providers--should be required to contribute to the universal service fund. Broadening the contribution base will minimize funding requirements, while also paving the way for fairer and quicker development of broadband in hardest-to-reach areas. Requiring all broadband service providers and all voice substitute providers to contribute will provide sufficient universal service collections and create long-term stability in the USF contribution methodology.

In addition, the Commission should give serious consideration to assessing any business that depends on consumers having broadband access to the Internet as part of their business. These businesses offer some type of advanced "value added" services that are made possible by Internet broadband access. It is the best interest of these businesses to maximize the number of consumers that can use their advanced services. It is in the consumer's best interest to be able to fully and freely access all of the richness and diversity that is offered by applications and services available through a broadband connection. These companies pay to access the Internet, but do not presently pay anything for costs incurred by the volume of traffic generated by their applications in parts of the broadband network beyond there own access. Such costs could include network embellishments made by broadband Internet access providers to carry traffic generated by new application. Increased demand would require Internet access providers to add capacity where they have shared network facilities. This would include 'Middle Mile" facilities,

[32] *Id.* at 20.

enhanced Internet backbone access, and local routers.

As mentioned in NTCA's initial comments, Google's search engine imposes enormous bandwidth demands on the public Internet.[33] This bandwidth utilization involves generation of substantial data transferred over the public Internet, including over middle-mile and last-mile facilities. Google's bandwidth usage rate is rapidly increasing, which should prompt consumers, broadband Internet service providers, and the Commission to reflect on the cost per gigabyte, or cost per terabyte, of data. Careful consideration by the Commission of the definitions of bandwidth, bandwidth utilization, data transfer rate, contention (oversubscription) and throughput will aid in clarifying the broadband landscape.

It is reasonable to assume that a major new service introduced by a national information service provider would increase the operating costs of a broadband Internet access provider without generating any additional local revenue. The Commission should therefore open a proceeding to determine whether companies that impose significant costs on the public Internet should be required to contribute to a high-cost broadband universal service fund.

In its comments Google, an application and information service provider, specified three dimensions of broadband Internet access it deemed to be necessary:

> The Commission should assess three different dimensions of broadband as a network platform for providing consumers with optimal access to the Internet: (1) the availability of broadband infrastructure on a ubiquitous basis; (2) the robustness of broadband capacity sufficient to support Internet access; and (3) the openness of Internet access itself. All three dimensions are necessary in order for broadband infrastructure to serve as an optimal Internet platform.[34]

If broadband Internet access is this important to Google and other companies competing with Google, these companies should help to defray the additional cost to establish, maintain and upgrade such capability in high cost areas.

[33] NTCA Comments, pp. 20-21.
[34] Google Comments, p. 4.

B. Broadband Revenues, Not Numbers, Should Be Assessed for Future USF Support.

Verizon and AT&T urge the Commission to adopt a new telephone numbers USF contribution methodology to assess future broadband universal service contributions.[35] Verizon argues that the Commission should base future broadband USF support on telephone numbers because they are supposedly easy to understand and equitable.[36] The problem with Verizon's argument is that telephone numbers have nothing to do with broadband Internet access service, which will be the basis for all communications in the future. Verizon and AT&T will very likely use a number-based contribution methodology to avoid future USF contributions when they move all their broadband customers from North American Numbering Plan (NANP) telephone numbers to IP-based voice protocols and soft numbers in the future. Adopting a legacy telephone numbers-based USF contribution methodology will position the Commission for failure in achieving ubiquitous and affordable broadband for all Americans in the new IP-based broadband world. The Commission must not let this happen.

Legacy telephone numbers have nothing to do with IP-based applications or broadband Internet access service. Verizon by its own admission writes:

> By their very nature, IP-enabled services ignore state boundaries, and the efficient routing of IP traffic depends on the free flow of packets irrespective of the kind of point-to-point routing characteristic of circuit-switched networks. The web servers and softswitches that allow for the provision of IP-enabled services will, in many cases, be located outside the particular state in which a user of those services is located. When end users employ IP-enabled services to communicate with each other, the packets travel with complete disregard for state and national boundaries. … It is precisely these features, which resist traditional legacy telephone regulatory classification and which are characteristics of IP-enabled

[35] AT&T recently filed a petition seeking implementation of a numbers-based contribution mechanism. *In the Matter of Universal Service Contribution Methodology*, WC Docket No. 06-122, AT&T Petition for Immediate Commission Action to Reform its Universal Service Contribution Methodology (filed July 10, 2009). Although the Commission has not sought comment on this petition, NTCA urges the Commission to reject the AT&T petition for the reasons stated herein.

[36] Verizon and Verizon Wireless (Verizon) Comments, p. 113.

> services, including both facilities-based and over-the-top VoIP service, that make possible vast new opportunities for consumers and businesses in urban and rural areas alike across the country.[37]

Numbers are associated with telephone service not broadband service, which will support all voice, data, video, and security needs of the 21st century. Verizon's own comments make no case for adopting a number-based USF contribution methodology.

In *Brand X*, the United States Supreme Court stated "the Commission concluded a consumer cannot purchase Internet service without also purchasing a connection to the Internet and the transmission always occurs in connection with information processing."[38] In the 2005 *Wireline Broadband Classification Order*, [39] the Commission determined that "wireline broadband Internet access service, like cable modem service, is a functionally integrated, finished service that inextricably intertwines information-processing capabilities with data transmission such that the consumer always uses them as a unitary service."[40] The Commission further held that "consistent with *Brand X*, such a transmission component is mere

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[37] *Id.* at 120.

[38] *National Cable & Telecommunications Association v. Brand X*, 545 U.S. 967 (2005). A copy of the Brand X Slip Opinion can be found at http://www.fcc.gov/ogc/documents/opinions/2005/04-277-062705.pdf.

[39] *In the Matter of Appropriate frameworks for Broadband Access to the Internet over Wireline Facilities*, CC Docket 02-33, *Universal Service Obligations of Broadband Providers*, CC Docket No. 01-337, *Review of regulatory Requirements for Incumbent LEC Broadband Telecommunications Services, Computer III Further Remand Proceeding: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements;* CC Docket Nos. 95-20, 98-10; *Conditional Petition of the Verizon Telephone Companies for Forbearance Under Section 47 U.S.C. § 160(c) with Regard to Broadband Services Provided Via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided Via Fiber to the Premises*, WC Docket No. 04-242, Consumer Protection in the Broadband Era, WC Docket No. 05-271, FCC 05-150, ¶ 9 (rel. Sept. 23, 2005). (*Wireline Broadband Classification Order*).

[40] *Id.* ¶ 12. The Commission limited this order to wireline broadband Internet access service and its underlying broadband transmission component whether the component is provided over copper loops, hybrid copper-fiber loops, fiber to the curb or fiber to the premise (FTTP) network, or any other type of wireline facilities, and whether that component is provided using circuit switched, packet-based, or any other technology. ¶¶ 112-113. After a transition period established by the order, ILECs that choose to offer broadband Internet access on a common carrier basis will continue to be liable for USF contributions based on the revenues from those offerings. ILECs that choose to offer broadband Internet access on a private carriage basis after the transition, their revenues from the offering would not be subject to USF contribution assessments. ¶ 9, footnote 15.

telecommunications."[41]

The underlying transmission component of all broadband Internet access services is "telecommunications" as defined by the Act.[42] Section 254(d) specifically provides the Commission with authority to require any other provider of interstate "telecommunications to contribute to universal service." The future public communications network will require universal service funding to provide affordable and comparable voice and broadband services to all Americans, urban and rural, high-cost and low-income. It will also require a USF contribution methodology that is able to evolve with the future public communications network that will rely on IP-based transmission services. If USF contributions are limited to traditional wireline and wireless voice services, the inevitable migration away from these services will eliminate all future universal service funding. NTCA therefore urges the Commission to require all cable, wireless, VoIP, electric and satellite broadband Internet access providers to contribute to the federal universal service fund based on their revenues.

The goals of universal service cannot be met without the broad support for the underlying networks that carry their VoIP as well as circuit switched traffic. Failing to position non-wireline broadband Internet access providers, VoIP providers, and wireless providers on equal footing with existing wireline USF contributors will continue to place existing wireline contributors at a distinct competitive disadvantage and further drain revenues from the existing USF contribution revenue assessment base. Without competitive neutrality, the disparate regulatory treatment of non-wireline broadband providers, VoIP providers and wireless providers will continue to invite arbitrage and create false economic incentives that will undermine the

[41] *Id.* ¶104.

[42] Telecommunications is defined as the transmission, between or among points specified by the user, of information of the user's choosing, without change in form or content of the information as sent and received. 47 U.S.C. § 153(43). Information service is defined as the offering of a capability for generating acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications. 47 U.S.C. § 153(20).

Public Communications Network (PCN) (consisting of the existing and future PSTN and the existing and future Internet).

NTCA urges the Commission to retain the current revenues-based contribution methodology for USF assessments and apply it to broadband Internet access service revenues. The revenues-based USF contribution methodology has proven to be the most equitable, non-discriminatory, and administratively feasible mechanism for providing specific and predictable universal service support in accordance with the Act.

C. High-Cost USF Support Should Be Based on Each Company's Own Costs, Not on the Incumbent's Cost.

High-cost USF support should not be calculated using the identical support rule, which allows a certified eligible telecommunications carrier (CETC) to receive the same per-line support as a rural ILEC based on the rural ILEC's costs, because this approach will not accurately capture the actual costs incurred by high-cost recipients in bringing broadband to their customers and because the rule unnecessarily inflates the high-cost USF mechanism.[43] Consequently, the Commission should eliminate the Identical Support Rule and allow carriers the option of submitting their cost data to the Commission for purposes of determining their future high-cost USF support. NTCA also renews its call for a five-year phase-out period to transition CETCs.[44]

NTCA's approach has support. The Rural Independent Competitive Alliance (RICA) agrees that any support plan adopted should look to actual costs of service.[45] Verizon contends that the identical support rule results in "excessive support to multiple carriers in the same study

[43] 7 C.F.R. § 54.307.
[44] NTCA Comments, p. 40.
[45] RICA Comments, p. iv.

area" while not encouraging wireless providers to expand their territory and offerings.[46] OPASTCO agrees that embedded cost should be used for rural ILECs.[47] The Vermont Public Service Board advocates for eliminating the identical support rule, as does the Texas Cooperative Association.[48] The Commission should conclude that high-cost USF support, and the services selected for support, should be based on a recipient's own costs.

D. The High-Cost USF Mechanism Should Not Be Capped.

The Commission should reject calls to cap or freeze the rural carrier high-cost USF support as this will halt broadband deployment in high-cost areas and leave many rural consumers with substandard broadband service or without any broadband service whatsoever. Verizon overreaches when it claims that an uncapped high-cost USF will imperil both the affordability and sustainability of all universal service programs.[49] Rural ILECs have demonstrated repeatedly that, given adequate USF support, rural carriers will provide high-quality broadband services to their rural communities.

In their initial comments, Free Press proposes siphoning universal service support away from the "substantial amount of lines that are supported by the Universal Service Fund [that] receive relatively small amounts of per line support."[50] Free Press believes that it would be possible to reclaim $3.0 billion of the $4.6 billion high cost fund by these means, leaving $1.6 billion "to provide ongoing support in the 'very high-cost' areas that would still require monthly subsidies."[51]

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[46] Verizon Comments, p. 115.
[47] OPASTCO Comments, p. 31.
[48] Vermont PSB Comments, p. 12, Texas Comments, pp. 3, 12.
[49] Verizon Comments, p. 112. *See also* Vermont PSB Comments, p. 15 (proposing a $4.5 billion cap on high-cost funding).
[50] Free Press Comments, p. 218.
[51] *Id.* at 229.

Free Press rationalizes this redistribution, saying that "it is possible that some USF-supported carriers are receiving small amounts of per-line support without any reduction in consumer prices."[52] Free Press further opines that "it is also possible that incumbent carriers are receiving USF support that enables them to hold their retail rates below cost in the face of competition from other unregulated technologies that offer a higher level of service."[53]

Elimination of this support would have dramatic and immediate consequences for NTCA member companies. At best, retail rates would increase, putting service out of reach of many of their customers. Also, service quality would drop as carriers would no longer be able to fund necessary network upgrades and maintenance. At worst, the companies would no longer be able to offer service at all, stranding even those customers who had the means to continue subscribing. Free Press misidentifies the root cause of the problems with the Universal Service Fund: "The Commission and the Federal-State Joint Board that oversees the Universal Service Fund (USF) have largely become captives of the rural companies that thrive off its subsidies."[54]

In reality, rural companies do not hold the FCC or the Joint Board "captive," nor have they "thrived" as a result of the universal service program, but rather have effectively used their support to successfully bring affordable, high-quality services to rural America, as recognized by the Joint Board ("Under existing support mechanisms, RLECs have done a commendable job of providing voice and broadband services to their subscribers").[55] The problem with the unsustainable growth in the fund has been primarily caused by the awarding of duplicative support, based on the incumbent's costs, to CETCs. Stripping incumbent carriers of their universal support funding will not solve any problems—to the contrary, it would create major

[52] *Id.* at 219.
[53] *Ibid.*
[54] *Id.* at 187.
[55] *In the Matter of High-Cost Universal Service, Federal-State Joint Board on Universal Service*, WC Docket 05-337, CC Docket 96-45 (rel. Jan. 29, 2008), p. 19.

hardships for the customers they have served so well.

Freezing or capping high-cost USF would prevent rate-of-return carriers from earning their authorized rate of return, or would shift excessive costs to rural consumers in violation of the comparable rate requirement of Section 254 of the Act. NTCA agrees with OPASTCO that the cap on the High-Cost Loop Support program for rural ILECs should be lifted to support broadband networks and services in rural areas.[56] Lifting this cap would ease the difficulty that rural carriers face in maintaining and upgrading their networks.

Competitive bid procedures, such as those proposed by Qwest and AT&T for unserved areas, and reverse auctions, such as proposed by Microsoft, will not result in deploying advanced services and high quality of service for rural customers.[57] Reducing the high-cost fund or removing support to a separate broadband fund, as the New York State Public Service Commission and Vermont Public Services Board suggest, will reduce the financial source necessary to keep rates comparable in rural areas and assure rural lenders that the rural carriers will be able to repay their loans.[58] Caps and freezes on high-cost USF support are fundamentally inconsistent with the Commission's broadband build-out goals. The Commission should not include a high-cost USF cap as part of its national broadband plan.

E. Broadband Can Become More Available to Lifeline and LinkUp Consumers Using the Proposed USF Pilot Program.

Commenters have joined NTCA in urging the Commission to bring broadband to low-income consumers through the existing Lifeline and LinkUp USF funding mechanism implemented as a pilot program.[59] While the Commission's draft proposal can be improved, as

[56] OPASTCO Comments, pp. 22-24.
[57] Qwest Comments, p. 12, AT&T Comments, p. 87, Microsoft Comments, p. 7.
[58] NYSPSC Comments, p. 9, Vermont PSB Comments, p. 11.
[59] NTCA Comments, p. 43, NRECA Comments, p. 9, NRTC/DBC Comments, p. 15, AT&T Comments, p. 29, Qwest Comments, p. 14, New Jersey Division of Rate Counsel (NJDRC) Comments, pp. 14, 23, NASUCA Comments, pp. 47, 65.

NTCA and others have suggested, the fundamental approach is sound policy and should be implemented.

Many commenters, rural and non-rural, agreed that targeted support for broadband services for low-income consumers is a valid national broadband goal. The National Rural Electric Cooperative Association agreed with NTCA that the USF low-income program should include broadband.[60] The National Rural Telecommunications Cooperative supports a broadband lifeline program.[61] AT&T asserts that "the Lifeline and Link-Up programs have helped millions of people obtain and maintain basic telephone service" and contends correctly that the national broadband plan should include broadband access services.[62] Qwest and ITTA agree that a broadband pilot program for low-income consumers is appropriate.[63] The New Jersey Division of Rate Counsel calls for an expansion of Lifeline Linkup to include broadband access.[64] NASUCA also encourages the Commission to examine the concept of affordability, as well as subsidized installation and monthly subscription costs, through a broadband Lifeline pilot program.[65]

NTCA's suggested improvements to the proposed $300 million per year, three-year program are repeated by other commenters. For example, Qwest agrees with NTCA that permitting eligible carriers to use the low-income broadband pilot program to offer broadband internet access to part of their service territories, rather than the entire territory, will enhance participation in the pilot program.[66] The Commission should include a broadband pilot program, which includes NTCA's suggested revisions, as part of the national broadband plan.

[60] NRECA Comments, p. 9.
[61] NRTC/DBC Comments, p. 15.
[62] AT&T Comments, pp. 48-49.
[63] Qwest Comments, p. 17, ITTA Comments, p. 26.
[64] NJDRC Comments, pp. 23-24.
[65] NASUCA Comments, pp. 65-66.
[66] Qwest Comments, p. 15.

IV. THE COMMISSION SHOULD OPEN A PROCEEDING TO DEFINE AND IDENTIFY "MARKET FAILURE AREAS" THROUGHOUT THE UNITED STATES, AND ESTABLISH COST DATA TO IDENTIFY AND TARGET SUPPORT TO SUCH AREAS.

In its Initial Comments, NTCA recommended that the Commission open a proceeding to define and identify "market failure areas" throughout the United States and target these areas for future high-cost broadband USF support in order to provide consumers living in these areas with affordable broadband service.[67] NTCA further urges the Commission "to gather input, as soon as possible, from all interested and affected parties on how to establish exactly which areas are too costly and thus would qualify as broadband 'market failure areas,' as opposed to markets that do not require future high-cost broadband USF support."[68] Doing so will require the Commission to "undertake the critical step of determining broadband network and operating costs that lead to determination of 'market failure areas.'"[69]

Many parties agree with NTCA about the existence of market failure areas (MFAs). As NASUCA notes, "[N]ot all consumers who would like to purchase state-of-the-art broadband connections – whether fiber-optic cable, advanced DSL, or advanced cable-television broadband technologies – have the ability to purchase such connections, in part because the lack of competition limits access to advanced broadband technologies at any price. This is a clear sign of market failure."[70] Consumer Federation of America and Consumers Union writes that the "failure to achieve universal service is, at root, a market failure. Large segments of the population cannot afford or do not have available broadband services that meet their needs. In part this market failure is the result of fundamental conditions – supply side costs that are too

[67] NTCA Comments, p. 11.
[68] *Id*. at 12.
[69] *Id.* at 13.
[70] NASUCA Comments, p. 22.

high or demand-side incomes that are too low."[71]

Other parties also recognize the importance and the efficacy of targeting support to these market failure areas. USTelecom writes that even "with an optimal regulatory environment, there are some areas of the nation, particularly high cost rural areas, that do not present a viable business case for private investment in high speed broadband facilities. Such areas require additional financial incentives for investment. There are several avenues for such incentives to be provided, including low cost loans, grants, tax incentives and universal service type mechanisms."[72] USTelecom further notes that "while there are areas that are too challenging to serve solely through private investment even with an optimal regulatory environment, such areas can be minimized and the need for government support can be most efficiently directed by regulatory policies that provide certainty and do not discourage such investment."[73]

The National Cable & Telecommunications Association further states that achieving "100 percent deployment of broadband networks in rural areas solely through the private sector is highly unlikely. Many areas are simply too remote and too sparsely populated to be likely to attract investment without some form of government support. Accordingly, to achieve the goal established by Congress, action by the Commission, such as USF reform, will be essential."[74]

NECA also agrees with NTCA: "Current universal service programs have irrationally attempted to support the provision of multiple voice and wireless networks in areas that cannot economically support even one carrier. Scarce broadband support funds should be targeted to areas where it is fundamentally uneconomic for any provider to deploy state-of-the-art fixed and

[71] CFA/CU Comments, p. 28.
[72] US Telecom Comments, p. 14.
[73] *Ibid.*
[74] National Cable & Telecommunications Association (NCTA) Comments, p. 19.

mobile network facilities."[75] NECA also correctly points out the ongoing nature of identifying such areas: "The number of specific areas meeting this criterion can be expected to change continually, as technology develops and local economies grow or shrink. Similarly, required broadband speed and capability levels can be expected to evolve with technology and marketplace developments. Ongoing regulatory monitoring of deployment levels and service criterion will undoubtedly be necessary."[76]

It is nearly impossible to argue that there has been no market failure. Certainly, those Americans living in areas of the country that are too costly for even a single broadband provider to serve would attest to the existence of market failure. The United States' ongoing decline in worldwide broadband deployment rankings would serve as further evidence. The spirit of universal service, as well as the interests of future U.S. competitiveness in the global economy, mandate that the Commission take all possible steps toward seeing that these unserved Americans are able to access broadband Internet service as soon as is practically possible. In addition, reasonable assurance of ongoing funding will be needed in order for providers to justify making the commitment to investing in these difficult and expensive to serve and maintain areas in the first place.

NTCA continues to believe that "ultimately targeting broadband support to market failure areas is sound public policy that is absolutely necessary if citizens residing in the most high-cost, rural areas, especially very sparsely populated unincorporated areas, are ever to receive affordable and comparable broadband service during the 21st century."[77] The Commission should "seek a realistic, credible and transparent process to determine deployment and operating

[75] NECA Comments, p. 9.
[76] *Id.* at 11.
[77] NTCA Comments, pp. 12-13.

costs for broadband networks in…'market failure areas' and to distinguish those cost characteristics from urban areas."[78]

V. BROADBAND INTERNET ACCESS SERVICE SHOULD BE RECLASSIFIED AS A "TELECOMMUNICATIONS SERVICE" AND REGULATED UNDER TITLE II COMMON CARRIER REGULATION.

NTCA, Free Press, Consumers Union, Consumer Federation of America, Media Access Project, Public Knowledge, and National Association of State Utility Consumer Advocates (NASUCA) agree that the primary reason America continues to fall behind the rest of the world in broadband deployment, penetration, affordability, and quality is due to the decisions made in 2003 and 2005 by the FCC to classify cable and wireline high-speed Internet access service as a Title I deregulated "information service."[79] These previous decisions to deregulate high-speed Internet access service has prevented and will continue to prevent the United States from reaching its goal of ubiquitous and affordable high-speed Internet access service for all Americans. Free Press states the "FCC should reverse the foundational mistake of its broadband policy framework by reclassifying broadband as a telecommunications service."[80] Until the Commission reclassifies all broadband Internet access services as a "telecommunications service'' and regulates this service under Title II common carrier regulation the goal of ubiquitous and affordable high-speed Internet access service for all Americans will never be achieved.

By classifying all broadband Internet access service as a telecommunications service regulated under Title II, the base of USF contributors will expand to include all broadband service providers as required under section 254. Broadband Internet access services will

[78] *Id.* at 14.
[79] NTCA Comments, p. 15, Free Press Comments, p. 27, Public Knowledge and Media Access Project Joint Comments, p. 2, CFA/CU Comments, p. 17, NASUCA Comments, p. 11.
[80] Free Press Comments, Executive Summary, p. 5

automatically be subject to the non-discriminatory network management obligations under sections 201 and 202. And, interconnection standards under section 251 and 256 would apply to all broadband providers.[81] The Commission's current net neutrality principles applied to cable and wireline broadband Internet access providers have replaced the non-discrimination obligations under sections 201 and 202, and interconnection standards under section 251 and 256.[82] As a result, the FCC is "laboring to ensure those four principles are enforceable."[83] Replacing or strengthening these principles with a Title II reclassification of all broadband Internet access services will provide the Commission with all the tools needed to provide a sound basis for the accelerated deployment of advanced services and make broadband Internet access service affordable to all Americans.

Verizon, AT&T, Qwest, USTelecom and the National Cable & Telecommunications Association argue that the Commission should not regulate broadband Internet access service under Title II common carrier regulation because it would undermine consumer choice and inhibit innovation and investment in broadband.[84] Their argument lacks merit. Contrary to assertions that applying Title II regulation to broadband access would be akin to applying "legacy" regulation on new technology,[85] the failure to do so is holding back new technology, investment, and affordable broadband service. Just as regulation was necessary to protect consumers and promote innovation, investment and competition in the "legacy networks," it is

[81] CFA/CU Comments, p. 17.
[82] The Commission has a duty to ensure interconnectivity and interoperability of public telecommunication networks pursuant to sections 251and 256 of the Telecommunications Act of 1934, as amended (Act). Specifically, Section 256 of the Act requires the Commission to establish oversight procedures to coordinate network planning. NTCA recommends that the Commission's standards and rules for the proper interconnection and exchange of traffic between broadband networks should be based on Sections 251 and 256 of the Act and limited to only the exchange of traffic between broadband providers. NTCA Comments, pp. 33-35.
[83] *Id.* p. 18.
[84] Verizon Comments, pp. 87-89, AT&T Comments, pp. 94-125, Qwest Comments, pp. 16-25, US Telecom Comments, pp.11-14, NCTA Comments, pp. 38-48.
[85] AT&T Comments, pp. 94-125, Verizon Comments, pp. 87-89.

similarly necessary going forward concerning the "broadband networks" operating within the United States.

The operators of the broadband networks, whether they use copper, cable, fiber, electric, satellite, or wireless should be subject to regulation that protects consumers and promotes competition, innovation, and affordability. The FCC has gradually whittled away at the concept of the "unregulated" Internet, imposing ad hoc regulation designed to protect the consumer interest, pursuant to its ancillary authority. Defined under Title II, the FCC can look at broadband and determine what access regulations are appropriate and necessary, and refrain from regulations that are inappropriate and unnecessary. The FCC does not have this ability or flexibility under Title I regulation and this is harming consumers, education, public health and safety, and national security.

By previously deregulating cable and wireline broadband Internet access under Title I, the Commission has beached itself and Americans are feeling the ill effects of this choice through the lack of available and affordable broadband services in many areas throughout the United States. It is the physical broadband network that provides "telecommunications" transport and it is the physical network that must be interconnected under reasonable and non-discriminatory conditions. The "Development of Competitive Markets" provisions added in 1996 to the Title II section in the Communications Act of 1934, as amended, provide the Commission with explicit authority to establish rules and regulations relating to interconnection, removing barriers to entry, universal service, interconnectivity, and consumer protection. Contrary to allegations that Title II is legacy regulation, Title II is the legal foundation for Commission action to establish the rules for a national broadband plan that protects consumers and facilitates broadband competition. Title II is the basis for our future broadband

infrastructure that will provide ubiquitous affordable broadband service throughout the United States.

VI. THE FCC SHOULD APPLY SECTIONS 251 AND 256 OF THE ACT ONLY FOR THE TRANSMISSION OF TRAFFIC BETWEEN BROADBAND NETWORKS.

NTCA agrees with Free Press in that the Commission should reclassify broadband Internet access service as a "telecommunications service" and regulate it under Title II common carrier regulation. Where NTCA disagrees with Free Press is how the Commission should apply Title II regulation when establishing the rules for interconnection, network management, unbundling, and line sharing.

One serious problem with Free Press' comments is their penchant to confuse correlation with causation. Just because a link can be established between two variables, that does not necessarily mean that a change in one variable can automatically be attributed to changes in the other, or that no other variables can explain these changes.

An example best illustrates the problem. In discussing the U.S. ranking in broadband penetration, Free Press dismisses the role of population density, saying "The population density excuse is perhaps the defense most consistently trotted out to explain away the U.S. decline, and it is also the most incorrect….For example, Iceland has one of the lowest population densities in the world, but it has the fifth highest broadband penetration in the OECD."[86] While Iceland does indeed have one of the lowest population densities in the world—measured as population per unit of land area—what may be more relevant for purposes of measuring broadband deployment is the *concentration* of that population. In Iceland, more than 50% of the nation's population lives in the country's three largest cities (Reykjavik, Kópavogur and Hafnarfjörður). More than

[86] Free Press Comments, p. 37, fn 35.

75% of Iceland's population lives in the ten largest cities.[87] (Compare this to 5% and 8%, respectively, of the total U.S. population living in the top 3 and top 10 most populous U.S. cities in 2005.) In other words, there aren't very many residents of Iceland living in remote areas. Highly concentrated populations are easier, and less costly, to serve. While there is a correlation between the population density of Iceland and its level of broadband deployment, this observation does not necessarily imply a causal relationship between the two. Further, Free Press fails to take into account other factors, which may impact broadband deployment--such as government subsidies, for example.

In a similar manner, Free Press insinuates that those countries with line sharing policies are ahead of the U.S. in broadband deployment and have lower broadband prices as a direct result of those policies. "OECD counties with line-sharing policies have DSL penetration levels nearly twice those of countries that do not require line sharing," Free Press writes,[88] automatically assuming causation though not investigating other possible reasons for the differences in penetration levels. Elsewhere, Free Press attributes differences in broadband pricing to line sharing policies: "Consumers in countries with line-sharing pay about $14 per Mbps, while consumers in countries without line sharing pay more than double that amount."[89] Again, the correlation may be readily apparent; the causation, however, is not.

NCTA correctly points out that where, as in the United States, there is already intermodal broadband competition, requiring carriers to unbundled network element and share them with competitors will have "little positive impact" in increasing broadband deployment and

[87] Based on 2005 population estimates: http://www.mongabay.com/igapo/2005_world_city_populations/Iceland.html.
[88] Free Press Comments, p. 79.
[89] *Id*. at 81.

subscription in the United States.[90] Indeed, because telephone, cable, wireless, electric and satellite companies have invested and continue to invest in advanced broadband facilities in the United States, requiring these companies to unbundle their networks will likely deter future investment and slow broadband deployment throughout America. As Scott Wallsten found: "the more countries rely on unbundled local loops or bitstream unbundling to provide DSL service, the less incumbents and entrants invest in fiber" and when there is intermodal broadband competition, "the more investment in fiber."[91] NTCA agrees.

The new broadband interconnection standards and rules should be limited for the exchange of traffic **only** and broadband providers should not be required to provide wholesale unbundled network elements (UNEs) or wholesale resale of their local fiber or digital subscriber line (DSL) loops to competitors. The deployment of optical fiber assets into rural ILEC networks is a new generation technology. No company in a competitive environment would rationally make such an investment without an appropriate consideration of the effects of existing competitive networks. Even if a company attempted to act irrationally and do so, any lender would require such an analysis and would tailor any funding decision to take into account such consideration. Requiring that such investment, if feasible, be made available to competitors unwilling to make such an investment themselves would have the net effect of providing an economic disincentive to investment which will result in the failure of public policy favoring broadband deployment. Rural LECs accept the responsibilities of providing access to end users on a provider of last resort basis and guarantee that access will allow end users to reach whatever data destination they choose on a non-discriminatory basis (subject to quality control/network management best practices).

[90] NCTA Comments, p. 25.
[91] Wallsten and Hausladen, *Net Neutrality, Unbundling, and their Effects on International Investment in Next Generation Networks*, Review of Network Economics (March 2009).

NTCA strongly believes that the Commission's four *Internet Principles* are an important step toward maximizing the quality of Internet users' experience, but that the addition of a principal governing non-discrimination would not only not solve any problems; it would in fact threaten the ongoing viability and continued growth of the Internet.

Free Press wants to see the Commission add a fifth principle to the 2005 *Internet Policy Statement*: one preventing Internet access providers from "blocking, discriminating against or otherwise degrading any lawful content, applications or services."[92] Free Press deems the current exception allowing providers to take necessary steps to safeguard their networks from those who would degrade service for all users a "get-out-of-jail-free card"[93] which "leaves the door wide open to carriers looking to implement discriminatory practices in the name of reasonable network management."[94]

Ensuring that no network users receive lower quality service as a result of the activities of other users is a serious concern for network operators. Removing their ability to take the necessary steps to do so would empower bandwidth hogs to drag down the entire network for their own personal gain. To assume that all end users will at all times act in the best interests of their fellow network users is both foolhardy and reckless.

AT&T takes on Free Press' net neutrality arguments in their comments in this proceeding. As AT&T correctly points out, "No proponent of a non-discrimination requirement has demonstrated that the existing *Internet Policy Statement* is in any way insufficient or that hypothetical concerns about 'discrimination' have become a real-world problem."[95] While Free Press points to the Comcast case as an example of the need for additional regulations to prevent

[92] Free Press Comments, p. 163.
[93] *Id.* at 252.
[94] *Id.* at 132.
[95] AT&T Comments, p. 104.

future abuses,[96] AT&T instead sees the Commission's effective resolution of the Comcast situation as evidence that further regulations are unnecessary: "the absence of a non-discrimination requirement did not in any way prevent the Commission from addressing the issues presented by…*Comcast*."[97]

AT&T points out several instances where Free Press' proposed requirement that all Internet packets be treated exactly the same as all other Internet packets would cause difficulties: "latency-sensitive applications like streaming video would have to be given the same priority as email; an Internet VoIP 911 call could be treated no differently than a YouTube download; and a telemedicine application would need to be handled in precisely the same manner as the contents of a Web page."[98] Clearly, this would not be a desirable outcome for the Internet or its users.

NTCA believes that the Commission's principles contained in its broadband policy statement adopted August 5, 2005 [99] will help to ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers.[100] NTCA further believes the Commission's net neutrality principles should also be designed to permit reasonable and non-discriminatory management of network bandwidth capacity, establish reasonable prices for special access services to the Internet backbone, and provide reasonable and non-discriminatory access to high-quality IP-based services to all consumers using the network. To this end, NTCA

[96] Free Press Comments, pp. 154-159.
[97] AT&T Comments, p. 104.
[98] *Id.* at 106.
[99] *In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities,* CC Docket No. 02-33*, Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services,* CC Docket No. 01-337*, Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services: 1998 Biennial Regulatory Review – Review of Computer II and ONA Safeguards and requirements,* CC Docket Nos. 95-20, 98-10*, Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, GN Docket No. 00-185*, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities,* CS Docket No. 02-52, Policy Statement, FCC 05-151, Released September 23, 2005.
[100] *See* Preamble, Telecommunications Act of 1996, P.L. 104-104, 100 Stat. 56 (1996) (enacting 1996 Act "to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies").

recommends that the FCC expand its existing network management principles pursuant to Sections 251 and 256 to include the following interconnection and nondiscrimination requirements:

1. Communications network providers should be required to provide consumers with non-discriminatory access to any lawful content or services on the public Internet through their Internet connection and allow consumers to attach any lawful equipment to their Internet connection.

2. Communications network providers should be allowed to offer quality of service priced public and private services to providers of IP-enabled services who seek to guarantee the quality of their services to the communications network provider's end-user customers.

3. Communications network providers should be allowed to take reasonable and non-discriminatory measures to protect their networks through the management of bandwidth and transmission of content and applications to their customers.

4. Communications network providers, including Internet backbone providers, should be required to provide all communications network providers with non-discriminatory access to the Internet backbone, including special access (middle-mile) transport needed to reach the Internet backbone.

5. Communications network providers, including Internet backbone providers, should be required to price their Internet backbone service, including special access (middle-mile) transport needed to reach the Internet backbone, based on their cost to provide the service.

6. Communications network providers, including Internet backbone providers, should be required to provide non-affiliated communications network providers with the same terms, conditions, and prices that the Internet backbone providers charge their affiliated companies and business customers for access to the Internet backbone, including special access (middle-mile) transport needed to reach the Internet backbone.

7. Communications network providers, including Internet backbone providers, should be required to make publicly available all of the terms, conditions and prices for their Internet backbone services, including special access (middle-mile) transport needed to reach the Internet backbone.

Considered as a package, these expanded net neutrality principles constitute a sound basis for open non-discriminatory networks that protect the interests of consumers, ISPs/broadband service providers, and IP application/content providers. Nothing in NTCA's proposed principles

condones the blocking or dropping of any lawful IP applications or broadband transmissions used by consumers or IP application/content providers.

VII. REASONABLE RATES, TERMS AND CONDITIONS FOR POLE ATTACHMENTS ARE KEY TO BROADBAND DEPLOYMENT IN RURAL AREAS, ESPECIALLY WHERE SMART GRID APPLICATIONS ARE USED.

Part of the national broadband plan should include reforms to the Commission's federal pole attachment regulations, as NTCA has contended in the Commission's open pole attachment docket.[101] The Commission should reject assertions by some utilities that telco and cable subsidies should be removed and that no changes are needed to the pole attachment regime because any change could jeopardize public safety or reliability.[102] Indeed, the utilities are raising barriers to entry against rural telcos in broadband provisioning through sky-high pole attachment rates and unfair, unreasonable and discriminatory pole attachment terms and conditions.

As the Utilities Telecom Council and Electric Edison Institute revealed, utilities are revamping portions of the electric grid and their internal usage of telecommunication facilities to bring broadband to some communities through BPL (broadband over power line) and smart-grid electric usage applications.[103] These same utility groups are asking the Commission for favorable treatment by allocating 30 MHz of spectrum in the 1800 – 1830 MHz range to smart-grid applications without the necessity of bidding at auction.[104] Yet, the utilities are stifling broadband services competition by barricading their poles through unreasonable and unjustified

[101] *In the Matter of Implementation of Section 224 of the Act, Amendment of the Commission's Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, FCC 07-187, RM-11293, RM-11303, Notice of Proposed Rulemaking (NPRM), filed Nov. 20, 2007, NTCA Reply Comments (filed Apr. 22, 2008).
[102] Utilities Telecom Council and Edison Electric Institute (UTC/EEI) Joint Comments, pp. ii, iii, 16-18, NRECA Comments, pp. 9-10, Virginia Power Electric (VPE) Comments, pp. 9, 12.
[103] UTC/EEI Joint Comments, p. 12 ("[Utilities} have used their private internal networks to provide broadband services."], NRECA Comments, p. 13 ("Seven electric cooperatives … are providing broadband access to their customers, using BPL [broadband over power line] service provided by IBEC and IBM … funded in part with loans from the USDA's Rural Utility Service broadband loan program.").
[104] UTC/EEI Joint Comments, pp. 10-11, NRECA Comments, p. 12.

rates, terms and conditions.

As part of the national broadband plan, the Commission should modify the pole attachment rules to create a dispute resolution mechanism that allows ILECs to resolve complaints of unjust and unreasonable pole attachment rates, terms and conditions against utilities. The Commission should set the lowest, fairest rate for broadband attachments that will encourage broadband deployment in rural areas. These changes will affect neither the public safety component nor the reliability of the electric grid, but will enhance competition and reduce consumers' broadband rates.

Smart grids, an integral part of the Obama Administration's broadband plans, are intensive high-consumption users of Internet services which, consequently, place substantial demands on broadband providers. As Comcast noted, "The Recovery Act included billions of dollars to jump-start 'Smart Grid' projects."[105] Smart grids consist of real-time, two-way communications systems that allow consumers to make timely, effective decisions on electricity use as a function of price spikes. UTC/EEI noted that "the market for communications equipment to support smart grid will reach $20 billion annually over the next five years."[106] Utilities which can control the broadband consumption of smart grid by controlling access to their poles have an unfair advantage over rural telcos who must pay excessive rates without recourse.

Small rural ILECs and their customers are entitled to just and reasonable rates, terms and conditions for pole attachments, and rural ILECs need and deserve a remedy mechanism by which ILECs can present claims of unjust, unreasonable pole attachment rates, terms and conditions imposed by utilities. Small rural ILECs operating in states that have not certified their

[105] Comcast Comments, p. 88.
[106] UTC/EEI Joint Comments, p. 5.

control over pole attachments, such as Arizona and North Carolina, lack an express procedural remedy for unjust and unreasonable pole attachment rates, terms, and conditions. NTCA's recommendation would remedy this omission. In certified states, such as Kentucky, New Hampshire, Vermont, Massachusetts, and Ohio, the Commission's actions regarding reasonable rates, terms and conditions will provide influential guidance to the state public service commissions on handling ILEC pole attachment complaints.

Rural ILECs depend on pole attachments for broadband deployment, and excessive rates and improper terms and conditions can discourage and delay broadband deployment in rural communities. Consumers of broadband will benefit the most when the artificial handicap of rate discrimination is removed. When broadband providers compete directly, consumers benefit from the lower prices, higher speeds, and better quality of service. Unfair advantages created by discriminatory rate structures will hinder if not harm those providers who bear unequal regulatory burdens, such as rural ILECs.

For these reasons, the Commission should create a dispute resolution mechanism that allows ILECs to resolve complaints of unjust, unreasonable pole attachments rates, terms and conditions. Furthermore, the Commission should set the lowest, fairest rate for broadband attachments that will encourage broadband deployment.

VIII. A NATIONAL BROADBAND PLAN MUST CONSIDER THE WIRELESS NEEDS OF RURAL COMMUNITIES

Wireless broadband is a necessary and useful component of the national broadband network. The majority of NTCA members offer fixed and/or wireless broadband service as a compliment to their wireline broadband service. But their efforts are often stymied by wireless rules and policies that favor large players to the detriment of small wireless providers and their rural subscribers. To accomplish truly ubiquitous broadband deployment, the Commission must

lower barriers for small, rural wireless providers.

A. Rural Wireless Providers Need Realistic Spectrum Opportunities

Rural wireless providers are dedicated to serving their communities. They seek spectrum, not as an asset, but as an opportunity to serve. As T-Mobile stated, "[t]o succeed as a national policy, the National Broadband Plan must outline steps for enabling mobile providers' – and, hence, consumers' – access to additional spectrum and infrastructure.[107] Unfortunately, spectrum auctions and policy tend to favor large regional and nationwide providers who often hoard spectrum and let it lay fallow.

NTCA and others have consistently requested that the Commission license wireless service territories in a manner that offers opportunities to small wireless providers interested in serving rural territory.[108] Small wireless providers with a vested interest in serving rural territory have a realistic opportunity to obtain spectrum only if it is auctioned according to small geographic areas. Small carriers lack the financial resources to compete with large carriers at auction for large geographic territories. Large carriers may be primarily interested in serving the urban communities while rural providers are interested in serving the rural communities, but auctioning them together ensures that the large carrier with urban interests will win. Rural wireless broadband deployment requires rural wireless provider opportunity.

Some commenters suggest that the Commission should use this proceeding as a vehicle to adopt rules for the 700 MHz D block.[109] Rather than adopting wireless licensing rules that favor one company's untested business plan based on mere promises to provide broadband to rural communities, the Commission should look to proven strategies that puts spectrum into the hands of rural community providers.

[107] T-Mobile Comments, p. 10.
[108] *See, e.g.,* OPASTCO Comments, p. 35.
[109] *See, e.g.,* New EA, Inc. dba Flow Mobile Comments, pp. 12-14.

Once a provider obtains spectrum, it should be subject to a "keep what you use" policy. After a reasonable build-out period, providers with large license territories should be forced to part with unused spectrum to free it up for other parties who will use it.

The Commission should also put a limit on large carriers' acquisition of spectrum. The two largest wireless providers have been forced to divest spectrum as they've swallowed a number of medium and small wireless providers. The Commission should deny their applications to purchase spectrum from each other, thereby thwarting the limited competitive protections the divestiture requirements sought to achieve. Small, rural providers are interested in acquiring the divested spectrum and should be provided an opportunity to obtain it.

B. Regulation of Roaming and Handsets is Necessary to Prevent Nationwide Providers from Using their Market Power to the Detriment of Rural Providers

The Commission's favorable resolution of outstanding rural wireless issues would go a long way toward ensuring that rural communities have access to comparable wireless broadband. The Commission should mandate automatic data roaming, eliminate the home roaming exception and prohibit handset exclusivity agreements.[110] Customers value a seamless wireless broadband experience. However, customers of rural wireless providers face high data roaming charges. The Commission adopted an automatic roaming requirement for voice services,[111] but it must now recognize that the network of the future, *i.e.*,, the broadband data network , requires the same consumer protections. NTCA agrees with RTG and "strongly urges the Commission to mandate automatic roaming, at just and reasonable rates, for all data services and broadband

[110] RTG Comments, pp. 2-4, OPASTCO Comments, pp. 36-37.

[111] *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers*, WT Docket No. 05-256, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 15817 (2007).

applications."[112]

Similarly, the Commission must address the "home roaming" exception to the automatic roaming requirement.[113] The policy of not requiring roaming in "home" licensed territories is intended to encourage network build-out, but it discourages rural competition. Small players need a period of time to build-out licensed territories. Without the ability to roam on other carriers' networks during the build-out period they cannot compete with nationwide providers and their vast existing networks. The ability to roam in a home market, at least during an initial build-out period, provides consumers with alternatives to large, nationwide providers.

The Commission must also act to eliminate the stranglehold that nationwide carriers have on state-of-the art mobile devices. Exclusive agreements between large wireless providers and handset manufacturers puts small rural carriers at a significant competitive disadvantage in areas where they compete with large providers and deprives consumers of mobile broadband devices in areas where the nationwide providers offer no, or limited, service.

IX. CONCLUSION.

The Commission must apply Title II regulation to broadband services and target future high-cost broadband USF support to the highest-cost areas throughout America. The one-time $7.2 billion in grants, loans, and loan guarantees available in the American Recovery and Reinvestment Act of 2009 (ARRA) is simply not nearly enough to achieve the Nation's long-term broadband needs and goals. The single most influential factor in stimulating our economy and establishing the United States as a global leader in broadband is America's willingness to invest, build and maintain our broadband networks.

[112] RTG Comments, p. 3
[113] OPASTCO Comments, p. 35, RTG Comments, p. 3.

The highest priority in the Commission's National Broadband Plan must center on strengthening and preserving our universal service policies in a manner that restates the underlying program's value in an IP world. To ensure the goal of a viable and open public Internet with high-quality, affordable and comparable high-speed broadband service to all consumers, the Commission must focus on providing sufficient, sustainable, and predictable USF support for broadband services throughout the "highest-cost areas" in the United States. Specifically, the Commission should consider and adopt the following reasonable, timely, and prudent measures as part of its National Broadband Plan:

1. Define "broadband" based on high-speed Internet access capabilities during peak-hour or busy-hour load that are generally available in a significant sample of service offerings in urban areas to establish a standard of comparability and affordability in urban and rural areas. As the capability of broadband technology and IP applications develop, the definition must evolve to meet consumer, education, business, and public health/safety demands. By linking the definition to generally available services, affordability, and comparability, the definition is enduring, technology neutral, and in the public interest.

2. Include "broadband Internet access service" in the definition of "universal service."

3. Open a proceeding to define and identify "Market Failure Areas" throughout the United States and target these areas for future high-cost broadband USF support in order to ensure consumers living in these areas have access to affordable and comparable broadband service.

4. Define a "Market Failure Area" as an area that does not have the population base or economic foundation for any provider to justify broadband facilities build-out and ongoing maintenance without external monetary support.

5. Reclassify wireline and cable "broadband Internet access service" as "telecommunications service."

6. Regulate broadband Internet access service providers under Title II common carrier regulation.

7. Apply a Title II earnings review to all broadband providers who voluntarily receive federal high-cost broadband USF support.

8. Allow rate-of-return (RoR) carriers to receive future federal high-cost broadband USF support through the Interstate Common Line Support (ICLS) mechanism, and price-cap carriers seeking to receive future broadband USF support through the Interstate Access

Support (IAS) mechanism, when they voluntarily choose to have their broadband services regulated under Title II and voluntarily provide their total company regulated Title II costs, revenues, and earnings to be used when determining their future broadband high-cost USF support disbursements.

9. Include ongoing operations and maintenance expenses, in addition to construction cost, in the calculation of the future high-cost broadband USF support.

10. Transition all high-cost voice USF support to high-cost broadband USF support over a reasonable time period to avoid rate shock, prevent service disruptions, and provide stability and certainty during the transition.

11. Maintain RoR regulation for rural ILECs throughout the transition period and allow rural ILECs to base their high-cost USF support on each carrier's study area average costs to ensure affordable and uninterrupted broadband Internet access service to rural, high-cost consumers.

12. Allow RoR rural carriers to provide stand-alone/naked broadband service with the same level of universal service funding as allocated to their bundled voice and broadband service during and after the transition period.

13. Expand the base of USF contributors to include all retail broadband Internet access service providers.

14. Open a proceeding to determine whether other companies that impose significant costs on the public Internet, such as Google, should be required to contribute to the new high-cost broadband USF mechanism.

15. Assess USF contributions based on telecommunications and broadband revenues.

16. Include Internet backbone and special access (middle-mile) transport service costs in the calculation for determining future high-cost USF broadband support.

17. Eliminate the identical support rule and base high-cost USF support on each company's own costs within 5 years.

18. Refrain from capping and/or freezing rural carrier high-cost USF support because this will halt broadband deployment in high-cost areas and leave many rural consumers with substandard broadband service or without any broadband service whatsoever.

19. Require IP/PSTN traffic, specifically interconnected VoIP traffic, to pay applicable tariffed originating and terminating interstate access rates, intrastate access rates, and reciprocal compensation rates, throughout the transitional period and/or until such time as there is no longer a PSTN.

20. Implement intercarrier compensation (IC) reform as part of the National Broadband Plan by allowing state commissions to reduce voluntarily, on a company-by-company basis, intrastate originating and terminating tariffed access rates to interstate tariffed access rate levels within 5 years, and at the same time freeze interstate originating and terminating access rates in order to keep interstate access rates from increasing.

21. Establish a Restructure Mechanism (RM) as part of IC reform that allows RoR carriers to recover lost access revenues not recovered in end-user rates through supplemental ICLS and price-cap carriers to recover lost access revenues not recovered in end-user rates through supplemental IAS.

22. Establish Title II interconnection and network management rules pursuant to Sections 251 and 256 of the Act to allow for the seamless transmission of communications between public broadband Internet access networks.

23. Require vertically-integrated Internet backbone and special access (middle-mile) transport provider rates to be cost-based and non-discriminatory.

24. Expand and make permanent the Universal Service Fund's Rural Health Care Pilot Program. Telemedicine networks made possible by broadband services save lives and will improve the standard of healthcare and life in sparsely populated, rural areas. Telehealth and telemedicine must be a critical component to the National Broadband Plan.

25. Improve the proposed broadband pilot program for low-income customers by setting aside half of the pilot program funds for rural low-income consumers and by clarifying the speed and device availability requirements. Permitting eligible carriers to use the low-income broadband pilot program to offer broadband internet access to part of their service territories, rather than the entire territory, will enhance participation in the pilot program and, consequently, give more rural consumers affordable broadband internet access.

26. Establish reasonable and non-discriminatory pole attachment rates for broadband pole attachments to encourage and accelerate broadband deployment, including smart grid applications.

27. Use the Regulatory Flexibility Act (RFA) (5 U.S.C. Section 601) effectively and adopt alternative rules to reduce the economic burden on small providers of broadband Internet access service, such as RoR rural carriers.

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I, Adrienne L. Rolls, certify that a copy of the foregoing Reply Comments of the National Telecommunications Cooperative Association in GN Docket No. 09-51, FCC 09-31, was served on this 21st day of July 2009 by first-class, United States mail, postage prepaid, or via electronic mail to the following persons:

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